

Project Name: _____	Project Number: _____
CFLHD Project Manager: _____	A/E or Hwy Design Mgr: _____
Originator: _____	Date: _____

Capitalized text represents significant changes or additions from the 70% requirements. However, all requirements are applicable.

95% DEVELOPMENT CHECKLIST	4R Projects Only	ORIGINATOR (Initials)
<p>Originator: "INITIAL" in block to indicate those elements completed, including incorporation of data, place an "I" in the block to indicate those elements that are incomplete, or write "N/A" to indicate those elements not applicable to the project. Resubmit the checklist as necessary until all applicable activities are complete.</p>		
GENERAL		
COMMENTS FROM ALL PREVIOUS REVIEWS INCORPORATED – 70% PS&E COMMENT & RESPONSE TRACKING FORM SUBMITTED		
Documents are in compliance with established CFLHD format standards – Match agreed to format, PDDM, and example plans.		
ALL ELEMENTS LISTED IN THE FOLLOWING CATEGORIES ARE FINAL		
Current edition of standard and detail drawings used		
THE PS&E HAS BEEN REVIEWED FOR BIDDABILITY TO DETERMINE THAT THE PLANS, SPECIFICATIONS, AND ESTIMATE ARE IN AGREEMENT, CLEAR, AND THERE ARE NO AMBIGUITIES. THE REVIEW ALSO DETERMINES THAT THE PLANS AND SPECIFICATIONS ARE SUFFICIENTLY DETAILED TO ALLOW REASONABLE BIDDING BY CONTRACTORS, SUBCONTRACTORS, AND MATERIAL SUPPLIERS		
PLANS, SPECIFICATIONS, ESTIMATE ARE CONSIDERED FINAL (100%) – ADVERTISEMENT READY		
ALL DESIGN EXCEPTIONS IDENTIFIED IN THE HIGHWAY DESIGN STANDARDS FORM HAVE BEEN ADDRESSED AND THE AGREED TO MITIGATION MEASURE ARE INCORPORATED		
PRINTED TEXT REPLACES HAND WRITTEN PLAN SHEET NUMBERS		
PREPARE A DRAFT PROJECT ENGINEER’S MEMORANDUM – PREPARE A SPECIAL CONSIDERATIONS NARRATIVE DESCRIBING SPECIAL CIRCUMSTANCES ENCOUNTERED DURING DESIGN, REASON FOR VARIANCE FROM PROJECT STANDARDS AND IMPORTANT ISSUES THAT SHOULD BE BROUGHT TO THE ATTENTION OF THE P.E.		
Insert design file path on all sheets (Place in lower left corner – outside of border)		
TITLE SHEET		
COMMENTS FROM THE 70% PS&E ARE INCORPORATED AND ALL ELEMENTS OF THE TITLE SHEET ARE CORRECT AND FINALIZED		
INDEX TO SHEETS IS UPDATED TO REFLECT FINAL PLAN SHEET LAYOUT. THE INDEX IS IN SUFFICIENT DETAIL TO EASILY LOCATE ALL PLAN SHEETS.		
Noticeable stamp stating percentage complete		
CONVENTIONAL PLAN SYMBOLS AND ABBREVIATIONS		
All Symbols and Abbreviations used in the plans match this sheet (latest edition)		
SURVEY CONTROL INFORMATION		
POINT NUMBER, NORTH, EAST, ELEVATION, AND PHYSICAL DESCRIPTION OF MARKERS ARE UP TO DATE		
SITE PLAN		
COMMENTS FROM THE 70% PS&E ARE INCORPORATED AND ALL ELEMENTS OF THE SITE PLAN ARE CORRECT AND FINALIZED		

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TYPICAL SECTION(S)		
COMMENTS FROM THE 70% PS&E ARE INCORPORATED AND ALL ELEMENTS OF THE TYPICAL SECTION(S) AND DATA CONTROLLING THE TEMPLATE ARE FINALIZED		
SUMMARY OF QUANTITIES		
FINAL QUANTITIES FOR ALL PAY ITEMS DEVELOPED		
CORRECT ITEM NUMBERS, ITEM DESCRIPTIONS, AND PAY UNITS (PLAN & BID)		
Correct quantities brought forward from Tabulation of Quantities sheets		
Bid allowance meets recommendations of PDDM		
Plan totals match support documentation		
Sheet Numbers and sheet descriptions for Cross Referencing to Individual Sections are correct		
Contract quantity		
Plan quantity equals bid quantity		
"Contract Quantity" note added to Remarks column		
Multiple schedules shown (i.e. Schedules A, $\pm 10\%$ under funding; B, at funding level; and C, $\pm 10\%$ over funding)		
Measurement information, descriptive remarks, and estimating values for pavement structure are shown in "Remarks and/or Determination of Estimated Quantities column"		
Method of payment is provided for all items of work in the contract		
Insert spreadsheet file location(s) and/or file path (Place in lower left corner – outside of border)		
DRAINAGE SUMMARY		
UPDATE AND FINALIZE DRAINAGE SUMMARY TO INCORPORATE PREVIOUS COMMENTS		
ITEM NUMBERS, DESCRIPTIONS, AND PAY UNITS MATCH PLANS, SPECIFICATIONS, AND ESTIMATE		
ALL DATA CORRELATES WITH SUMMARY OF QUANTITIES, PLAN & PROFILE, AND CULVERT CROSS-SECTION SHEETS		
Insert spreadsheet file location(s) and/or file path (Place in lower left corner – outside of border)		
EARTHWORK SUMMARY		
COMMENTS FROM THE 70% PS&E INCORPORATED AND GRADING SUMMARY AND MASS HAUL DIAGRAM FINALIZED		
Mass Haul Diagram graph		
REVISIONS TO GRADING SUMMARY ARE REFLECTED IN THE MASS HAUL DIAGRAM GRAPH		
Insert spreadsheet file location(s) and/or file path (Place in lower left corner – outside of border)		
TABULATION OF QUANTITIES		
Item number, description, stationing, location, pay units, and bid schedule are correct		
TABULATION OF ALL QUANTITIES ARE FINAL, WITH THE EXCEPTION OF THE FEW ITEMS OF WORK THAT ARE ESTIMATED (I.E. DUST CONTROL, LUMP SUM, EQUIPMENT HOURS) AND DO NOT REQUIRE TABULATION.		
Quantities and locations correlate with work descriptions on Plan & Profile sheets or work in individual sections as appropriate		

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PLAN AND PROFILE		
<u>Plan</u>		
PLAN IS UPDATED TO INCLUDE ALL COMMENTS AND OBSERVATIONS FROM THE 70% REVIEW		
ALL INFORMATION SHOWN IS FINALIZED AND AGREES WITH OTHER SECTIONS OF THE PLANS		
Information shown is clear and concise. Symbology is not cluttered.		
<u>Profile</u>		
INFORMATION ON PROFILE PORTION OF SHEET IS UPDATED TO INCLUDE ALL COMMENTS AND OBSERVATIONS FROM THE 70% REVIEW AND IS FINAL		
DRAINAGE DESIGN		
REVIEW THE DRAINAGE DESIGN ELEMENTS LISTED IN THE 70% DEVELOPMENT CHECKLIST AND ENSURE THAT REVISIONS MADE TO THE PLANS ALSO INCORPORATE REVISIONS TO THOSE ELEMENTS.		
CURBS		
ADJUSTMENT TO CURB LOCATIONS, LENGTH, AND POSITIONING ARE COORDINATED WITH COMPETING ELEMENTS		
GUARDRAIL		
PLACEMENT OF GUARDRAIL AND TEMPLATE WIDENINGS ARE CORRECT AND HAVE BEEN UPDATED TO ALLOW FOR CHANGES MADE.		
TEMPORARY TRAFFIC CONTROL		
TEMPORARY TRAFFIC CONTROL DESIGN FINALIZED, INCLUDING WORK ZONES, DETOURS, CONSTRUCTION PHASING, PAVEMENT MARKINGS, SIGNING, AND CHANNELIZING DEVICES.		
REVIEW THE TEMPORARY TRAFFIC CONTROL DESIGN ELEMENTS LISTED IN THE 70% DEVELOPMENT CHECKLIST AND ENSURE THAT REVISIONS MADE TO THE PLANS ALSO INCORPORATE REVISIONS TO THOSE ELEMENTS.		
APPROVAL (ENCROACHMENT PERMIT) OBTAINED FROM OTHER AGENCIES FOR CONSTRUCTION OPERATIONS (I.E. CONSTRUCTION SIGNS) WITHIN THEIR JURISDICTION.		
TEMPORARY TRAFFIC CONTROL DETAILS AND PROJECT SPECIFIC TEMPORARY TRAFFIC CONTROL DRAWINGS INCLUDE, BUT ARE NOT LIMITED TO, ALL OF THE REQUIREMENTS LISTED IN PREVIOUS DEVELOPMENT CHECKLISTS		
PERMANENT SIGNING		
SIGNING PLAN REVISED AND FINALIZED, INCLUDING STANDARDS, DETAILS, LAYOUT SHEETS, AND SPECIALS		
PERMANENT PAVEMENT MARKINGS		
PAVEMENT MARKING PLAN REVISED AND FINALIZED, INCLUDING STANDARDS, DETAILS, LAYOUT SHEETS, AND SPECIALS		

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ROAD APPROACHES			
HORIZONTAL AND VERTICAL ALIGNMENTS WERE REVISED AND FINALIZED FOR MAJOR APPROACH ROADS DURING THE 50 AND 70 PERCENT PS&E PHASES. REVIEW APPROACH ROAD DESIGN ELEMENTS AFFECTED BY CHANGES MADE AFTER THE 70% REVIEW AND UPDATE ACCORDINGLY.			
PARKING AREAS			
REVIEW AND UPDATE THE PARKING AREA DESIGN ELEMENTS LISTED IN THE 70% DEVELOPMENT CHECKLIST AND ENSURE THAT REVISIONS MADE TO OTHER DESIGN ELEMENTS ARE REFLECTED			
CURB AND EDGE OF PAVEMENT GEOMETRY FINALIZED – COORDINATES AND ELEVATIONS OF POINTS NECESSARY FOR LAYOUT (CONTROL POINT LAYOUT SHEET)			
REMOVAL OF SEDIMENT AND CONTAMINANTS FROM DISCHARGE WATER FINALIZED			
FENCES AND GATES			
REVIEW FENCING AND GATE LOCATIONS AND DETAILS AFFECTED BY CHANGES MADE DURING THE 70% REVIEW AND UPDATE ACCORDINGLY			
EROSION CONTROL			
FINAL EROSION CONTROL RECOMMENDATIONS INCORPORATED, INCLUDING 404 AND NPDES GENERAL PERMIT REQUIREMENTS FOR CONSTRUCTION PROJECTS.			
ENVIRONMENT			
REVIEW COMMENTS FROM PREVIOUS REVIEWS ARE INCORPORATED AND ALL ENVIRONMENTAL MITIGATION MEASURES AND COMMITMENTS ARE INCORPORATED INTO THE DESIGN			
MAJOR STRUCTURE PLANS			
REVISIONS TO THE BRIDGE DRAWINGS ARE COMPLETE AND THE DRAWINGS ARE FINALIZED			
MAJOR STRUCTURE DESIGN IS FINALIZED			
RETAINING WALL LAYOUT SHEETS ARE FINALIZED			
All recommendation relating to major structures from the Geotechnical and/or Hydraulics Report(s) are incorporated			
BRIDGE			
B3-5 TO B3-11 ACTIVITIES – STRUCTURAL DESIGN AND CHECK (CONT'D).			
COMPLETE STRUCTURAL FINAL DESIGN			
VERIFY STRUCTURAL DESIGN WITH STRUCTURAL INDEPENDENT CHECK			
PROVIDE STRUCTURAL DRAWINGS (SEE "BRIDGE PLAN PREPARATION CHECKLIST")			
PROVIDE SUMMARY OF STRUCTURAL QUANTITIES AND UNIT COSTS			
PROVIDE STRUCTURAL LOAD RATING REPORT			
PROVIDE STRUCTURAL SPECIAL CONTRACT REQUIREMENTS			
COMPILE STRUCTURAL 95% PS&E SUBMITTAL PACKAGE			
INCORPORATE COMMENTS FROM 70% REVIEW			

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CLIENT SUPPLIED DRAWINGS		
DRAWINGS HAVE BEEN MODIFIED AS APPROPRIATE TO COORDINATE WITH CFLHD FORMAT STANDARDS AND ARE IN AGREEMENT WITH OTHER PLAN DRAWINGS, SPECIFICATIONS, AND THE FP.		
UTILITIES		
FINAL UTILITY PLANS INCORPORATED INTO ROADWAY PLANS		
DETERMINE THAT THE UTILITY RELOCATION PLAN WILL BE EITHER 1) EFFECTED PRIOR TO CONSTRUCTION, OR: 2) IDENTIFIED IN THE SCR AS A COORDINATION REQUIREMENT AND INCLUDED AS A PAY ITEM.		
PERMANENT REVEGETATION		
PERMANENT REVEGETATION PLAN AND LANDSCAPING REQUIREMENTS ARE FINALIZED		
STANDARD DRAWINGS		
Applicable FLH Standard Drawings included, current version		
Applicable CFLHD Detail Drawings included, current version		
MISCELLANEOUS DESIGN ELEMENTS		
All areas of disturbance outside of the slope stake limits are included in the final construction limits (i.e. riprap aprons, subexcavation areas, work areas, culvert rundowns, wall construction, etc.)		
ALL DETAILS AND SPECIALS NOT DISCUSSED IN OTHER SECTIONS ARE REVISED TO REFLECT THE FINAL DESIGN.		
Proposed mitigation for any design exceptions, as noted on the Highway Design Standards form, shown on plans.		
ROADWAY CROSS-SECTIONS		
FINAL REVISIONS MADE TO CUT AND FILL SLOPES TO PROVIDE AESTHETIC TRANSITIONS BETWEEN CUT AND FILL SLOPES AND BETWEEN ADJACENT SLOPES, INCORPORATION OF REFERENCE HUB DATA, DRAINAGE CONSIDERATIONS, IMPACTS TO SIGNIFICANT VEGETATION, FIT WITH TOPOGRAPHY, AND ETC. THIS REQUIRES REVIEW OF CROSS-SECTIONS AND ADJUSTMENT TO INDIVIDUAL SLOPES.		
CULVERT CROSS-SECTIONS		
FINAL REVISIONS MADE TO CULVERT CROSS-SECTIONS TO REFLECT CHANGES MADE TO PROFILE, CUT/FILL SLOPES, DITCHES, ETC. CROSS-SECTIONS CORRESPOND WITH INFORMATION CONTAINED IN OTHER SECTIONS OF THE PLANS		
RIGHT-OF-WAY PLANS		
FINAL RIGHT-OF-WAY PLANS INCORPORATED INTO ROADWAY PLANS		
THE PS&E IS CHECKED AGAINST PROPERTY OWNER AGREEMENTS TO ENSURE INCLUSION OF ALL AGREED TO ITEMS		
ALL KNOWN NEGOTIATED ITEMS ARE INCLUDED IN THE PLANS AND/OR SCRs (I.E. WATER CONTAINMENT OR DRAINAGE PATTERNS, FENCING, CATTLEGUARDS, ROAD APPROACHES, ETC.) <i>THIS ACTIVITY CONTINUES THROUGH DEVELOPMENT OF THE FINAL PS&E.</i>		

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SPECIFICATIONS			
SPECIFICATIONS FOR ALL ITEMS OF WORK, INCLUDING WORK THAT IS SUBSIDIARY TO OTHER ITEMS OF WORK IS COVERED IN SUFFICIENT DETAIL TO ADEQUATELY DESCRIBE THE REQUIREMENTS ARE FINALIZED.			
All appropriate and most up-to-date SCR's from the Library of Specifications have been included			
SCR'S IN FINAL FORMAT, ALL HEADERS, FOOTERS, AND PAGINATION ACCORDING TO CFLHD STANDARDS.			
SCR'S HAVE BEEN FORMATTED TO REMOVE HIGHLIGHTED OR REDLINED TEXT			
Recommendations from Geotech, Hydraulics, Bridge, Materials, Safety, and partner agencies incorporated.			
COMMENTS FOR 70% REVIEW INCORPORATED			
COORDINATION REQUIREMENTS WITH OTHER CONTRACTORS IS UPDATED TO REFLECT ANTICIPATED SCHEDULES			
Coordination with utility companies accomplished, with required Contractor coordination and advance notice spelled out			
PLANS CONTAIN THE FOLLOWING SHEETS			
Title sheet			
Conventional plan symbols and abbreviations			
Survey control point listing			
Site map			
Typical sections			
Miscellaneous details			
Summary of Quantities sheets			
Tabulation of Quantities sheets			
Drainage Summary sheets			
Grading summary and mass haul diagram sheets			
Mainline plan and profile sheets			
Designed public intersection approach road plan and profile sheets			
Bridge plans			
Parking area plan sheets and detail sheets			
CFLHD Soil Erosion control details (i.e. silt fence, sediment logs, etc.)			
Erosion control layout plan sheets			
Road connections details			
Subexcavation and embankment benching details and specials			
Placed riprap details			
CFLHD MSE Retaining wall special details			
Retaining wall layout sheets			
Box culvert plan and profile, layout, and detail sheets or other large culverts needing headwalls			
Concrete headwall details			
Pipe culvert standard plans			
Drop inlet specials			
Underdrain details			

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Spillway and pipe anchor special details		
Paved ditch details		
Guardrail standard drawings		
Masonry specials		
Fence and gate details		
Cattleguard details		
Widening for cattleguard and gate		
Revegetation / Landscaping plans and details		
Signing and striping plans and specials		
Permanent Traffic control plans and details		
CFLHD Temporary Traffic control details, drawings, and project-specific drawings		
Cross-sections plan set cover sheet, if necessary		
Mainline cross sections		
Approach road cross sections		
Culvert pipe cross sections		
ESTIMATE		
Estimate includes all pay items		
Estimate Within programmed amount		
FINAL UNIT PRICE ANALYSIS COMPLETED		
Review of Unit Prices		
FINAL ESTIMATES ARE DEVELOPED FOR EACH BID SCHEDULE		
Bid items are broken down to reflect different funding sources		
Finalize material quality and smoothness incentives (use FP and SCRs for computation of incentives, Engineer's Estimate does not compute them correctly)		
Finalize contract quantity bid items		
DBE/WBE incentive not included in estimate		
Final cost estimate submitted in FHWA format		
FHWA's Engineer's Estimate program used		
PERMITS		
All permits/authorizations complete		
ALL PERMITS ARE REVIEWED AND PERMIT REQUIREMENTS INCORPORATED INTO THE DESIGN PLANS AND SCRS		
ENSURE THAT COPIES OF PERMITS AND CONDITIONS ARE INCLUDED IN BID PACKAGE AND FINAL PS&E PACKAGE		
ENCROACHMENT PERMIT OBTAIN FOR TEMPORARY TRAFFIC CONTROL DEVICES OR IMPACTS OUTSIDE OF THE PROJECT BOUNDARIES		
DELIVERABLES		
95% PLANS		

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95% SPECIFICATIONS		
95% COST ESTIMATE		
FINAL UNIT PRICE ANALYSIS		
COPY OF THE QUANTITY CALCULATIONS ALONG WITH SUPPORTING DOCUMENTATION		
STRUCTURAL DRAWINGS		
SUMMARY OF STRUCTURAL QUANTITIES AND UNIT COSTS		
STRUCTURAL LOAD RATING REPORT		
Final Design Technical Memorandum		
All permits/authorizations obtained		
FINAL NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES)		
NOTICE OF INTENT (NOI)		
STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AS APPROPRIATE		
Final construction schedule (CPM)		
QA/QC certification of Compliance		
70% COMMENT AND RESPONSE TRACKING FORM		
DRAFT PROJECT ENGINEER'S MEMORANDUM		
ALL PERMITS NOT PREVIOUSLY SUBMITTED		
<p>POST 95% ACTIVITIES <i>Activities to be conducted between the 95% and final (100%) PS&E</i></p>		
<p>B4 activity – Structural PS&E Revisions COMPLETE ANY NECESSARY REVISIONS TO THE BRIDGE PS&E PACKAGE FOLLOWING THE INTERNAL AND EXTERNAL REVIEWS</p>		